



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,683	03/19/2004	Matthias Niethammer	P04,008.2	8170
7590 SCHIEF HARDIN LLP Patent Department 6600 Sears Tower 233 South Wacker Drive Chicago, IL 60606				
04/02/2008				
EXAMINER				
FISHER, PAUL R				
ART UNIT		PAPER NUMBER		
3689				
MAIL DATE		DELIVERY MODE		
04/02/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/804,683

**Applicant(s)**

NIETHAMMER, MATTHIAS

**Examiner**

PAUL R. FISHER

**Art Unit**

3689

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date 9/10/2007

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This communication is a first Office Action Non-Final rejection on the merits. Claims 1-12, as amended on 8/27/2004, are currently pending and have been considered below.

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-7 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 1 recites the limitation "external device interface" in claim 1, line 13. There is insufficient antecedent basis for this limitation in the claim.

5. Claim 11 recites the limitation "installed medical system" in claim 11, line 12. There is insufficient antecedent basis for this limitation in the claim.

6. Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term "router" in claim 1 is used by the claim to mean "data link or communication channel", while the accepted meaning is "A device in a network that handles message transfers between computers. A router receives information and

Art Unit: 3689

forwards it based on what the router determines to be the most efficient route at the time of transfer". The term is indefinite because the specification does not clearly redefine the term.

7. For claims 1-7, applicant has claimed the invention as an apparatus but it appears to be a system with a series of components as opposed to a single piece of equipment. For the purposes of examination the Examiner is taking it to be system.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. **Claims 1, 8 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Shiraishi (US 2003/0050792).**

**As per claim 1**, Shiraishi discloses a medical apparatus (Paragraph 2; discloses that the apparatus can be used in a medical system) comprising:

an installed medical system having a control unit for operating the installed medical system (Fig. 1, character 104, Fig. 2, character 4, paragraph 30; disclose that the apparatus includes a medical system with a control unit);

a remote access interface connected to the control unit for allowing the control unit to communicate with a remote location for remote servicing of the installed medical system (Fig. 2, character 10, paragraph 34; discloses the remote access interface);

an external device usable in combination with said installed medical system (Fig. 1, character 103, paragraph 30; discloses the external device in this example case it is a gantry apparatus);

said installed medical system having an interface (Fig. 2, character 9; discloses the interface for the external device) connected to said control unit, and connectible to said external device when used in combination with said installed medical system, for allowing communication between said control unit and said external device (Paragraph 34; discloses the communication with the external device); and

said control unit comprising a router (data link or communication channel) for placing said external device in communication with said remote access interface, via said external device interface, for allowing remote servicing of said external device from said remote location (Fig. 2, characters 9 and 10; disclose the router or communication channel that allows communication from the external device and the remote location).

**As per claim 8**, Shiraishi discloses a method for remotely servicing an external device used in combination with an installed medical system (Paragraphs 1-4; disclose that the invention relates to a medical system and services external devices), comprising the steps of:

providing an installed medical system with remote access equipment allowing remote servicing of said installed medical system (Fig. 2, characters 9 and 10, paragraph 3; disclose that the system includes remote access equipment for allowing the remote servicing of the installed medical system);

connecting an external device to said installed medical system (Fig. 2, characters 9 and 103; disclose that the external device, which is in this example a gantry apparatus, is connected to the installed medical system); and

temporarily connecting said external device to said remote access equipment in said installed medical system for allowing remote servicing of said external device (Fig. 2, characters 9, 10, and 103, paragraph 4; disclose that the external device is connected to the remote access equipment in the installed medical system and that the service provider is able to have access to this equipment to perform maintenance service).

**As per claim 11**, Shiraishi discloses a method for servicing an external device used in combination with an installed medical device (Paragraphs 1-4; disclose that the invention relates to a medical system and services external devices), comprising the steps of:

establishing a communication link between an installed medical device and a service center remote from said installed medical device (Fig. 1, paragraph 3; disclose there is a communication link between the installed medical device and a service center);

via said communication link, remotely servicing said installed medical device from said service center (Paragraph 3; discloses that the communication link is used to remotely service the installed medical device);

temporarily connecting an external device to said installed medical device (Fig. 2. paragraph 4; disclose that there is an external device, which in this example is a gantry apparatus, that is connected to the installed medical device); and

routing said communication link from said installed medical device to said external device (Fig. 2, characters 9 and 10; disclose the routing of the communication link from the installed medical device); and

remotely servicing said external device from said service center through said installed medical system (Paragraph 4; discloses that the external device is serviced remotely through the installed medical system);

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. **Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi (US 2003/0050792), in view of Lisa Fratt: "What's Up with Contrast Injectors?" (February 2003) hereafter Fratt.**

**As per claim 2**, Shiraishi discloses the above-enclosed invention, Shiraishi further discloses wherein said installed medical system is a computed tomography system and where there is an external device connected (Paragraph 2; discloses the

system can be used in a CT scanner or MRI system, and the external device can be a plurality of machines including but not limited to a gantry apparatus).

Shiraishi fails to disclose wherein said external device is a power contrast agent injector.

Fratt, which talks about contrast injectors, teaches that the external device used in a computed tomography system can be a power contrast agent injector (Paragraph 4, heading Fact 3; teaches that the market for CT power injectors is growing due to new applications and procedures such as CT angiography, cardiac CT and perfusion imaging and that the faster the scanners are the more precise the delivery of contrast agent must be, from this it would have been obvious to exchange the external device used in the system provided by Shiraishi with a power contrast agent injector since it is one of many devices that could be used in conjunction with this system and would have to be monitored to ensure proper care and maintenance is observed).

Therefore from this teaching of Fratt, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the remote servicing of CT equipment provided by Shiraishi, with the use of power contrast agent injector in a CT system taught by Fratt, for the purpose of providing the users of the system with the newest and most up to date equipment. Shiraishi also mentions that the system can comprise a plurality of machines and uses the gantry apparatus as an example, it would have been obvious to exchange the external device used in the system provided by Shiraishi with a power contrast agent injector since it is one of many



devices that could be used in conjunction with this system and would have to be monitored to ensure proper care and maintenance is observed.

**12. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi (US 2003/0050792), in view of Bonissone et al. (6,609,217).**

**As per claim 3**, Shiraishi discloses the above-enclosed invention; Shiraishi fails to explicitly disclose wherein said control unit comprises security protecting for isolating said external device from a remainder of said installed medical system not involved in the remote servicing of the external device.

Bonissone et al., which talks about a system and method for diagnosing and validating a machine over a network using waveform data, teaches wherein said control unit comprises security protecting for isolating said external device from a remainder of said installed medical system not involved in the remote servicing of the external device (Col. 15, lines 46-67, Col. 16, lines 1-9; teaches that the system incorporates a firewall for security and to isolate the communications from the external devices being monitored from the rest of the traffic on the network, this security is necessary in any corporate or business environment so that information that is deemed important or confidential is not accessible from the outside or unauthorized users).

Therefore from this teaching of Bonissone et al., it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the remote servicing of CT equipment provided by Shiraishi, with the use of a firewall in the medical system taught by Bonissone et al., for the purpose of security. This security is

Art Unit: 3689

necessary in any corporate or business environment so that information that is deemed important or confidential is not accessible from the outside or unauthorized users.

**13. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi (US 2003/0050792), in view of Bonissone et al. (6,609,217), further in view of Dell: [www.dell.com](http://www.dell.com) (June 10, 2002) hereafter Dell.**

**As per claim 4**, the combination of Shiraishi and Bonissone et al. teaches the above-enclosed invention, Bonissone et al. teaches the use of a firewall for security but fails to explicitly disclose if the firewall is hardware or software.

Dell, which talks about components that can be installed in a system, teaches wherein said security protection comprises security hardware (Page 17, Under FireWall/Secuirty/VPN, Page 22; teaches that firewalls can be in the form of hardware usable in a system).

Therefore from this teaching of Dell, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the remote servicing of CT equipment that includes a firewall for security provided by the combination of Shiraishi and Bonissone et al., with the use of a hardware version of a firewall system taught by Dell, for the purpose of a dedicated piece of hardware, which would ease the burden of computing power off of the other computing devices in the system. Hardware firewalls have been known to be faster and more secure then their software alternatives.

**As per claim 5**, the combination of Shiraishi and Bonissone et al. teaches the above-enclosed invention, Bonissone et al. teaches the use of a firewall for security but fails to explicitly disclose if the firewall is hardware or software.

Dell, which talks about components that can be installed in a system, teaches wherein said security protection comprises security software (Page 17, Under FireWall/Secuirty/VPN, Page 19; teaches that firewalls can be in the form of software usable in a system).

Therefore from this teaching of Dell, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the remote servicing of CT equipment that includes a firewall for security provided by the combination of Shiraishi and Bonissone et al., with the use of a software version of a firewall system taught by Dell, for the purpose of providing the user with an adequate security protection, with minimum change in the network setup and less over all cost. With a software firewall there is no need for extra hardware to be purchase or maintained just for the software to be installed on an existing system.

**14. Claims 6, 7, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi (US 2003/0050792), in view of Dell.**

**As per claims 6, 7, 9 and 10**, Shiraishi discloses the above-enclosed invention, Shiraishi discloses having a remote access interface, but fails to explicitly disclose whether it is an original or retrofitted component.

However, the Examiner asserts that when constructing a network certain components are required, such as remote access interfaces. Dell teaches that it is old and well known to purchase network cards and modems as either original or retrofitted components for a system (Pages 3-14; teaches that there are many components that can be optional when setting up an original system Pages 7-8; teaches that remote management cards Network Adapter cards and modems are all optional equipment that can be purchased and installed when the system is originally built. Page 24; teaches that networking products such as network adapters and modems can be purchased after the original equipment is set up. Customers would rather have the equipment installed original if available because it saves them time and resources, since they would have to buy the products separately and have them installed. Although the option of retrofitting components is useful for systems that may not have a need for this hardware, for example if the service was not available or was thought to not have been useful at the time, this can save them money on the initial building of the system. As the customer's needs change the equipment needs to be installed or upgraded. Even if the customer had a network adapter or modem installed in their original system they may have a desire at a future date to upgrade that equipment at a later date which advancements in hardware become available).

Therefore from this teaching of Dell, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the remote servicing of CT equipment provided by Shiraishi, with the use of originally installed or retrofitted components taught by Dell, to provide their customers flexibility. Customers

Art Unit: 3689

would rather have the equipment installed original if available because it saves them time and resources, since they would have to buy the products separately and have them installed. Although the option of retrofitting components is useful for systems that may not have a need for this hardware, for example if the service was not available or was thought to not have been useful at the time, this can save them money on the initial building of the system. As the customer's needs change the equipment needs to be installed or upgraded. Even if the customer had a network adapter or modem installed in their original system they may have a desire at a future date to upgrade that equipment at a later date which advancements in hardware become available.

**15. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi (US 2003/0050792).**

**As per claim 12**, Shiraishi discloses a method for charging for servicing of an external device used in combination with an installed medical device (Paragraphs 1-4; disclose that the invention relates to a medical system and services external devices), comprising the steps of:

installing an installed medical device manufactured by a first manufacturer (Fig. 1, paragraphs 1-4, 42; disclose the installing of medical device manufactured by a first manufacturer);

providing said installed medical device with remote access equipment allowing said installed medical system to communicate with a service center located remote from said installed medical device for remote servicing of said installed medical device (Fig.

2, characters 9 and 10, paragraph 3; disclose remote access equipment that allow the medical system to communicate with a service center);

connecting an external device, manufactured by a second manufacturer, to said installed medical system (Fig. 2, characters 9 and 103, paragraph 4 and 42; disclose an external device being connected to the installed medical system by a second manufacturer);

establishing communication, through said remote access equipment of said installed medical device, between said external device and said remote center for remotely servicing said external device (Fig. 2, characters 9, 10 and 103, paragraph 4; disclose that communication is established between the remote access equipment and the installed medical device for servicing by a remote center); and

imposing a monetary charge by the manufacturer (Paragraph 2 and 58; disclose that the service provider imposes a monetary charge for a service contract and states that the contract is negotiated with the customer and checked before services are rendered).

Shiraishi fails to explicitly disclose wherein the imposing of the monetary charge is by said first manufacturer to said second manufacturer dependent on said remote servicing of said external device. The Examiner however asserts that it would have been obvious given the definition of the term contract (from [www.dictionary.com](http://www.dictionary.com) that's that a contract is an agreement between two or more parties for the doing or not doing of something specified) that the first manufacturer would charge the second manufacturer for any services they agreed upon. The contract mentioned in paragraph

2 of Shiraishi states that the contract is between a customer since this is a maintenance agreement the manufacturer of the external device could have an agreement with the service provider that if services are performed on their device that they are to be charged the appropriate fee. The service provider mentioned in Shiraishi would need to have access to the component equipment and maintain this equipment to ensure that the entire system is working properly as mentioned in paragraph 4, and would not want to perform maintenance and updates to external devices that are not covered under the hospitals service agreement without having an agreement with the second vendor to get paid for services performed.

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include imposing a charge to a second manufacturer of an external device in the system provided by Shiraishi, for the purpose of ensuring that the service provider is not doing maintenance and upgrades to parts of the system for free. The service provider mentioned in Shiraishi would need to have access to the component equipment and maintain this equipment to ensure that the entire system is working properly as mentioned in paragraph 4, and would not want to perform maintenance and updates to external devices that are not covered under the hospitals service agreement without having an agreement with the second vendor to get paid for services performed.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAUL R. FISHER whose telephone number is (571)270-5097. The examiner can normally be reached on Mon/Fri [7:30am/5pm] with first Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janice Mooneyham can be reached on (571)272-6805. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PRF

/Janice A. Mooneyham/  
Supervisory Patent Examiner, Art Unit 3689